## Climate Change and Human Health Literature Portal



# Human health effects of air pollution

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#### Abstract:

Hazardous chemicals escape to the environment by a number of natural and/or anthropogenic activities and may cause adverse effects on human health and the environment. Increased combustion of fossil fuels in the last century is responsible for the progressive change in the atmospheric composition. Air pollutants, such as carbon monoxide (CO), sulfur dioxide (SO(2)), nitrogen oxides (NOx), volatile organic compounds (VOCs), ozone (O(3)), heavy metals, and respirable particulate matter (PM2.5 and PM10), differ in their chemical composition, reaction properties, emission, time of disintegration and ability to diffuse in long or short distances. Air pollution has both acute and chronic effects on human health, affecting a number of different systems and organs. It ranges from minor upper respiratory irritation to chronic respiratory and heart disease, lung cancer, acute respiratory infections in children and chronic bronchitis in adults, aggravating pre-existing heart and lung disease, or asthmatic attacks. In addition, short- and long-term exposures have also been linked with premature mortality and reduced life expectancy. These effects of air pollutants on human health and their mechanism of action are briefly discussed.

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### **Resource Description**

#### Exposure: M

weather or climate related pathway by which climate change affects health

Air Pollution

Air Pollution: Ozone, Particulate Matter, Other Air Pollution

Air Pollution (other): SO2; NOx; CO; VOCs

Geographic Feature: M

resource focuses on specific type of geography

None or Unspecified

Geographic Location: M

resource focuses on specific location

Global or Unspecified

Health Impact: M

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specification of health effect or disease related to climate change exposure

General Health Impact

Resource Type:

format or standard characteristic of resource

Review

Timescale: M

time period studied

Time Scale Unspecified